

Emergency Watershed Project Design Considerations & Benefits

Wupatki Trails

Design Considerations

- Current designs avoid diverting flood waters and focus on using the historic flow paths that existed prior to and during the initial set of major post wildfire flood events in 2010
- Designs have been created with the goal of minimizing the impact to private property, and making the size of needed drainage easements as small as possible. Where possible, public rights-of-way have been utilized.
- The implementation of an integrated system of watershed restoration on forest and flood mitigation in the neighborhood will reduce potential impacts from flooding and reduce the level of sediment carried by flood water during the design storm
- Designs have been created using the 5 year/24 hour design storm with consideration of the two years of watershed recovery that has occurred since the fire
 - This means that the improvements made to private properties and in the forest above the development will be able to carry 130 cubic feet per second of flood waters. For scale, the approximates flood flows generated by the larger storm events experienced in 2011

Benefits

Safety

- Improvements reduce risks to life, property and public infrastructure for up to and including the design storm event
- Improvements contain all flood flows at the design storm, and may reduce risks at larger storm events
- Improvements provide predictability as to where flood waters will go for flows up to the design storm. Without mitigation:
 - Flood waters in the upstream watershed will likely continue to migrate unpredictably across the alluvial fan
 - Continued migration will result in continued erosion and property damage and potential damage to homes, property and other structures

Financial

- Improvements may result in increased property values and resale values
 - Properties will be better protected and areas that are severely degraded from past flooding will be repaired
- You will retain ownership of your property under the drainage easement

- The easement only provides the County access to your property to construct and maintain the improvements and you will have the opportunity to reclaim the use of the land after the three year vegetative recovery period
- The value of the easements will be translated into more than \$600,000 in watershed restoration and flood mitigation in your neighborhood. Property owners may be entitled to state and federal income tax deductions based on the value of their donated easements. Coconino County will provide a market valuation that can be submitted to claim the deductions
- The Coconino County Assessor will likely provide a temporary reduction in property tax valuation based on donating the easement (open land valuation)

Utilities and Road Maintenance and Access

- Flood water overtopping of roadways will be eliminated at the design storm and reduced for larger storms given upsizing of the culvert on Camino de los Vientos
- Improvements will result in improved utility service reliability